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ABSTRACT

The purpose of this study was to determine the impact of an introductory college psychology course on student attitudes, specifically social liberalism. A 30-item true/false test instrument, developed at Michigan State University and purported to measure student attitudes on a dimension of liberalism-conservatism, was used in the studies. Data were gathered from a pretest and posttest administered to a matched group of 54 community college students enrolled in an introductory psychology course. The findings showed a significant change in attitudes of social-liberalism between the administration of the pre- and posttests, with the direction of change toward accentuating liberalism. The author specifies four limitations of the study which prevented a precise identification of causal factors which might account for such a significant change in student attitudes. References are included. (Author/DB)

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A STUDY OF AN INTRODUCTORY PSYCHOLOGY COURSE AS A NON-ACADEMIC CHANGE AGENT

SOCIETAL FACTORS

by

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ABSTRACT

The purpose of this study was to attempt to determine the impact, if any, of an Introductory Psychology course on student attitudes. The specific attitude under investigation was social-liberalism. Further, if such a change in attitudes was detected, in what direction and to what degree did that change take? Data for the study was gathered from a pre-test and post-test of "liberalism" administered to a matched group of 54 community college students enrolled in an Introductory Psychology course. The following conclusions were drawn from the study: (1) That for the population of students studied, a significant mean change in attitudes of social-liberalism occurred between the administration of the pre and post L-tests, (2) That the direction of change was toward an accentuation of liberalism, (3) That the intensity of change was of a greater magnitude for those students defined as "least liberal" on the pre-test, and (4) That certain limitations of the study prevented a precise identification of causal factors which might account for such a significant change in student attitudes.

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A STUDY OF AN INTRODUCTORY PSYCHOLOGY COURSE AS A NON-ACADEMIC CHANGE AGENT

I. INTRODUCTION

The literature of educational philosophy is replete with a variety of views on the virtues and rewards of a college education. Historically and today, there are two divergent but overlapping perspectives that emerge. The difference is often couched in terms of a conflict between "progressive and traditional" or between "liberal and general" education. Regardless of which position is "right", a single factor is common to both positions---CHANGE. Each view suggests that students will be in some way different as a result of their tenure in school. Or as Henry S. Commanger stated: "Education is the instrument of change, change of nature and of human nature".

II. BACKGROUND AND SIGNIFICANCE

"Change" is a particularly crucial issue for today's colleges and students alike. College administrators and faculty see, most optimistically, a college education as "society's salvation"; while, most pesimistically, students question whether or not the college experience does anything at all for them. The subject of academic competence aside, legitimate concerns have been raised as to what,

if any, changes accrue to students in the non-academic area of "human-nature", e.g., politicalism, religiosity, self-esteem, liberalism. There is not only considerable debate as to IF change occurs, but also as to DIRECTION and INTENSITY of the changes.

In light of wide-spread interest in determining the non-academic impact of the college experience on students, numerous studies have been conducted in this area (Huntley, 1967; Nichols, 1967; Lehmann and Dressel, 1962; McConnell, 1962; Newcomb, 1969). In nearly all the above-mentioned studies, a multiplicity of attributes were considered longitudinally for the four years of undergraduate college. And in singling out the specific attribute of liberalism, nearly all studies report that student's net change over four years occurred in the direction of increased liberalism. For example, at Michigan State University, Lehmann and Dressel (1962) found that both males and females became significantly more oriented toward liberal values as a consequence of their four-year tenure in college. Interestingly, most such studies show only the net changes (in one direction) on scales of liberalism-conservatism. However, studies by Finney (1967) and Edelstein (1962) have shown that students change in both directions---accentuation and regression. In the Finney study, over half of the 792 entering male students at Berkeley changed during their first two years in their degree of liberalism (accentuation); however, twenty-one percent became <u>less</u> liberal (regression) although the net change was to liberalism. Apparently, the college experience can result in a two-directional change on the attitudinal

dimension of liberalism-conservatism.

While a search of the literature revealed numerous studies that were concerned with a change in liberalism over years, none could be located that investigated change over a span of time of as little as ten weeks (a term), nor as a response to a single course of study. Individual faculty members have evinced interest (affective course objectives) in knowing whether or not their specific course(s) cause non-academic attitude change in their students. Therefore, the major thrust of the present study was an attempt to answer this latter question: "Do student's liberal-conservative attitudes change as a consequence of a single course of study?"

Specifically, the purpose of the proposed study was an attempt to determine the impact, if any, of a single course in Introductory Psychology on the liberal-conservative attitudes of students. And if such a change occurs, what direction does the change take---accentuation or regression---and to what magnitude? Relatedly and in addition to the specific purposes of the study, a further insight might be gained pursuant to an earlier-mentioned statement by Commanger: "Education is to be the instrument of change..."

III. LIMITATIONS OF THE STUDY

Certain limitations of the study are included below:

(1) The size of the sample population may inhibit a

generalization of the findings beyond the specific course from which the population was drawn.

(2) The test instrument may suffer from inadequate measures of "reliability" and/or "validity".

(3) No provision was made to analyze data according to age, GPA, sex, previous courses in psychology (high school), and/or major field of study.

IV. BASIC ASSUMPTIONS OF THE STUDY

The study was conducted and reported within the framework of the selected assumptions listed below:

(1) That the population of subjects is homogeneous in that it is normally distributed on the basis of age, sex, GPA and major field of study.

(2) Any difference that may exist between student test scores on the pretest and post-test is attributable to a change on the student's part and not to a change in the test itself.

(3) That the test instrument is unidimensional and that that dimension is social-liberalism.

(4) That the provision for controlling extraneous variables is adequate for the purpose of this study.

V. METHODOLOGY

Data for the study was gathered from a pretest and post-test administered to a matched group of first-year students enrolled in

an Introductory Psychology class for the Winter Term, 1975, at Lorain County Community College (N=54).

Instrument. The 30-item test instrument used in the study was developed by Gerald Hersey of Michigan State University and purports to measure student attitudes on a dimension of liberalism-conservatism* (See Appendix A). In consideration of a control factor, the L-Test was normed on 736 first-year community college students over a period of the last three years. The overall mean was 19.87.

The L-pre-test was administered during the first week of the term and the post-test was administered during the last week of the same term. The elapsed time between pre and post-test was nine weeks.

Scoring Procedures. Both the pretest and post-test situations involved students marking "true" or "false" to a series of thirty statements. An individual student's score was the total number of times he/she was in agreement with a scoring key, keyed to liberalism (L-score). In other words, the greater the L-score the more liberal a student; and an L-score of 30 is most liberal.

Calculations were made for mean test scores on both the pre and post-test as to the index of liberalism. In order to test for significant differences in the means, the "direct-difference" method of calculating t for matched pairs was used (Spence, et.al, 1968).

*Where social-liberalism is commonly taken to mean favoring reform of society; emphasis of science over religion; moral relativism; broad-mindedness. Where social-conservatism is generally taken to mean preserving the existing order of society; emphasis of religion over science; practicality over idealism. The above interpretations are to be considered as applicable to the use of the two terms throughout this paper, unless otherwise noted.

The null hypothesis (H_o) for the study is that the two sets of student L-Test scores do not differ significantly from one another. And the null hypothesis was accepted or rejected at the .05 level of significance.

VI. RESULTS

L-Test Scores. Table 1 presents frequency distributions, means and standard deviations for students' pre and post-test L-scores. Student performance on the pre and post-test is presented in graphic form in Figure 1. As Table 1 and Figure 1 indicate, there is a marked difference between the students' pre-test L-scores and their post-test L-scores. And that difference tends to reflect a change in the direction of increased liberalism.

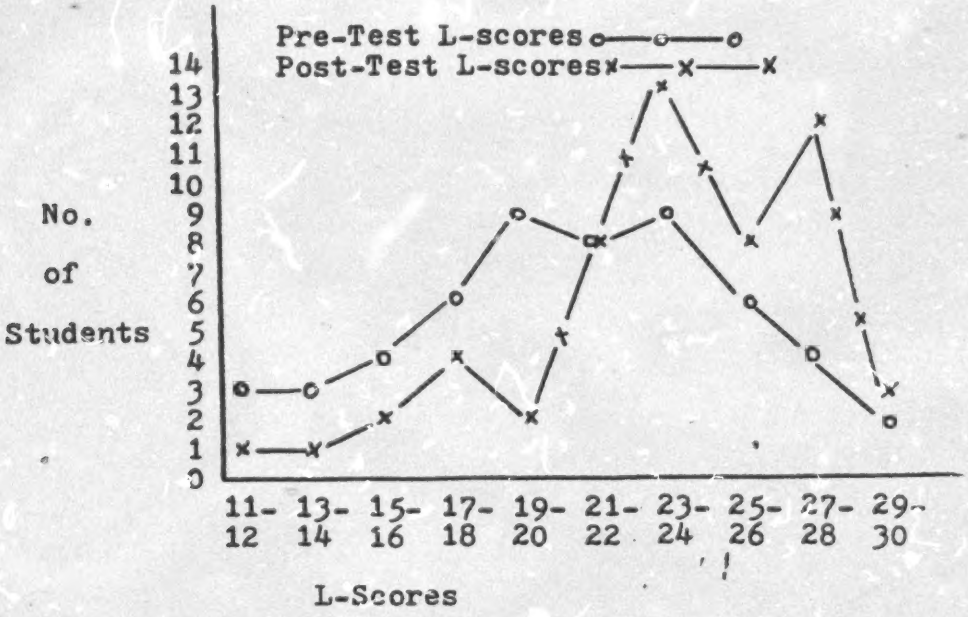
TABLE 1

FREQUENCY DISTRIBUTIONS, MEANS AND STANDARD DEVIATIONS FOR THE PRE AND POST-TEST L-SCORES

Test Score Intervals	Frequency	
	Pre-Test	Post-Test
29-30	2	3
27-28	4	12
25-26	6	8
23-24	9	13
21-22	8	8
19-20	9	2
17-18	6	4
15-16	4	2
13-14	3	1
11-12	3	1
	$N_1=54$	$N_2=54$
	$\bar{X}_1=20.76$	$\bar{X}_2=23.37$
	$\sigma_1=4.44$	$\sigma_2=4.16$

FIGURE 1

L-SCORES AS A MEASURE OF STUDENT PERFORMANCE ON THE PRE AND POST L-TESTS



Null Hypothesis: The pre and post-test group means do not differ significantly from one another.

The application of a t-test for matched groups resulted in a rejection of the null hypothesis of no difference between group means at the .001 level or better ($t=5.57$, $p>.001$). Table 2 indicates that for the population of students enrolled in the Introductory Psychology course, a significant mean change in attitudes of increased liberalism occurred between the administration of the pre and post L-Tests.

TABLE 2

MEAN DIFFERENCE, STANDARD DEVIATION OF THE DISTRIBUTION OF DIFFERENCES AND THE STANDARD ERROR OF MEAN DIFFERENCE FOR GAIN/LOSS SCORES BETWEEN PRE AND POST L-TESTS

$\bar{X}_D$	σ_D	$S_{\bar{X}D}$	
2.56	3.32	.46	t=5.57*

*Significant at the .001 level of confidance.

In order to more precisely determine if the nature of change was one of increased (accentuation) or decreased (regression) liberalism, a simple gain/loss score was taken for the matched pairs of students as the difference between their pre and post-test L-scores (See Table 3). As Table 3 indicates, 75.92 percent of the students experienced an accentuation of their liberal attitudes, while only 16.67 percent regressed in their degree of liberalism, and 7.41 percent remained the same.

TABLE 3

TOTAL NUMBER AND PERCENTAGES OF STUDENTS WHO CHANGED AS MEASURED BY A GAIN/LOSS DIFFERENCE BETWEEN THE PRE AND POST-TEST L-SCORES

GAIN/LOSS	N	%
Gain		
+1	11	20.36
+2	4	7.41
+3	4	7.41
+4	4	7.41
+5	5	9.26
+6	5	9.26
+7	4	7.41
+8	3	5.56
+9	1	1.85
+10	0	0.00
Loss		
-1	3	5.56
-2	4	7.41
-3	1	1.85
-4	1	1.85
-5	0	0.00
NC	4	7.41
TOTAL =	41 9 4	75.92 16.67 7.41

Relatedly, a median-rank method of comparison was employed in order to determine whether or not the likelihood for change was peculiar to the initially "more" or "less" liberal student. "More" or "less" liberal was defined as those students who scored above or below the median on the pre-test. Of the 27 students who scored "more-liberal" on the pre-test, 59.26 percent changed in the direction of increased liberalism. However, of the 27 "less-liberal" students, 92.60 percent changed in the direction of increased liberalism (See Table 4).

TABLE 4

PERCENTAGES OF CHANGE AND MEAN GAIN/LOSS SCORES FOR "MORE-LIBERAL" AND "LESS-LIBERAL" ONE-HALVES OF PRE-TEST L-SCORES

L-Score Difference	"More-Liberal"			"Less-Liberal"		
	N	%	$\bar{X}_{GS}$	N	%	$\bar{X}_{GS}$
Increase	16	59.26	2.62	25	92.60	4.48
Decrease	8	29.63	1.00	1	3.70	2.00
No Change	3	11.11	-	1	3.70	-
T=	27	100%	3.62	27	100%	6.48

VII. DISCUSSION AND SIGNIFICANCE

To what extent the significant change toward attitudes of social-liberalism was due to the actual experience of being enrolled in the Introductory Psychology course, and to what extent other courses, peer influences, and/or life experiences in general, is not precisely known. However, it will be recalled that, as

was mentioned earlier, the L-Test has been used (for different purposes) for the past three years at the beginning of the Introductory Psychology course. The mean L-Scores for that period of usage was 19.87 and the range of means was from 18.89 to 20.92. The mean of the L-Test (post) in the present study is sufficiently higher than previous means so as to suggest that the significant change toward liberalism may be attributable to the course itself?

Additionally, at the conclusion of the post-test, a self-report about possible change was solicited from each student. An analysis of the responses on self-reported change revealed that students who predicted that they had changed toward liberalism, did in fact change in that direction. As to the "cause" of their change, the students were nearly equally divided in their identification of the change-agent---the course itself or the specific course instructor.* Given the above considerations, the identification of the change-agent should be taken as suggestive not conclusive.

A review of Table 3 shows that the magnitude of change was clearly different for those students who shifted toward greater liberalism as contrasted to those who regressed. Of the students who became more liberal, their mean gain-score was 4 points plus, while students who regressed had a mean loss-score of less than 2 points. Apparently, of <u>all</u> students who underwent a change in attitudes, the force of change was not only in the <u>direction</u> of

*The instructor in question obtained an L-score of 30.

liberalism, but in intensity as well. In other words, change toward increased liberalism is likely to be stronger than a change toward conservatism.

To consider the question of WHO changed, a review of Table 4 would be facilitative. It can be noted that the greater probability for a shift toward increased liberalism accrued to those students who were characterized as initially "less liberal". Additionally, the greater magnitude of change toward liberalism was characteristic of those students who initially scored as "less liberal". Indeed, the mean gain-score for the category of "most liberal" is 1.56 points, while for the "less liberal", the mean gain-score is 4.48 points. Such results are consistent with elements of previous research on student attitude change. A tenable position regarding an explanation for such change holds that the most significant attitude change accrues to those students who experience the greater discontinuity between their attitudes and the attitude characteristics of the larger academic environment. In other words, it makes little sense to expect that, other things equal, little change will occur if there is little stress or challenge as a stimulus for change.

While the results of the present study are consistent with the discontinuity hypothesis, a limiting consideration requires attention. One problem with the use of a simple gain/loss score is that the index of amount changed is artifically restricted for the student with a high pre-test score---the "ceiling effect". As a case in point, it may be noted that, of the nine students

who had a loss-score, seven of the nine achieved an L-score of 25 and above. Did the regression occur because of the "ceiling"; in short, was there too little room for change---except downward?

An additional consideration may be given to the discontinuity hypothesis. Current evidence suggests that the more incongruent the student is with his academic environment, the more likely he is to withdraw from a specific course or college in general (Feldman and Newcomb, 1969). Interestingly, of the seven students who did not complete the course, their mean L-score was 15.63, which is a full five plus points removed from the overall pre-test group mean. Assuming a greater degree of discontinuity on the part of these seven students, it would be expected that they would have more trouble in adjusting to the Psychology course/instructor---value shock?

A limitation of the present study, not mentioned previously, involves the emergent evidence which tends to suggest that attitude change is inextricably tied to what is referred to as a person's "situational identity". From a consideration of the student's "situational identity" of being in an essentially liberal academic environment, it may be postulated that what the L-Test actually measured was, not the student's "real" shift toward liberalism but, actually, the student's responses cued to his "more-liberally" oriented situation. It remains for additional research to pursue this suggested relationship between "real" change and situationally cued change. One apparent possibility would most certainly include

the administration of a follow-up L-Test.

Overall and as a matter of practical interpretation, the significant difference between L-Test score means provides limited evidence that an Introductory Psychology course has a potential influence on student attitude change. The extent to which this potentiality is an actuality has not yet been fully assessed empirically.

VIII. RECOMMENDATIONS

The following recommendations seem appropriate, as derived from the findings of the present study.

That additional empirical studies be encouraged so as to more precisely discover the manner in which and to what extent individual courses and/or instructors influence students. The potential ways a course and/or instructor can influence students are many. It remains for us to not only discover, but to possibly direct and control such impact on students. Such is the particular case at a community college, for nearly all the available literature on the subject is related to the population of four-year colleges and universities.

That faculty be informed of the potential for instructional impact on the affective domain of student personalities. Such consciousness-raising may stimulate an increased interest in the re-appraisal of teaching philosophies and related course objectives.

That some serious thought be given to an attempt at accurately

measuring the affective aspects of learning and incorporating such results into the grading process. Since learning involves more than cognative change, we should enccurage such measurement of learning that involves affective change.

SUMMARY

The purpose of the study was to attempt to determine the impact, if any, of an Introductory Psychology course on student attitudes. The specific attitude under investigation was social-liberalism. Further, that if such a change in attitudes was detected, in what direction and to what degree did that change take? Data for the study was gathered from the administration of a pre and post-test of "liberalism" to a matched group of 54 community college students enrolled in an Introductory Psychology course. The following conclusions were drawn from the study:

(1) That for the population of students studied, a significant mean change in attitudes of liberalism occurred between the administration of the pre and post L-Tests, (2) That the direction of change was toward an accentuation of liberalism, (3) That the intensity of change was of a greater magnitude for those students defined as "least liberal" on the pre-test, and (4) That certain limitations of the study prevented a precise identification of causal factors which might account for such a significant change in student attitudes.

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